DEQ BMP Warehouse User Manual

SECTION 1. BMP WAREHOUSE BACKGROUND

The BMP Warehouse online reporting application was developed by DEQ to facilitate reporting NPS BMP data to the EPA Chesapeake Bay Program (CBP) for utilization in their watershed simulations. This initial development occurred in 2014 and 2015 and the application has been used to report to CBP since the 2015 annual progress submission. Subsequently DEQ has adopted the use of this application for all NPS BMP reporting statewide and in 2019 required Phase II MS4s to do their annual BMP reporting as a permit condition. As individual MS4 permits are renewed this condition will be included until all MS4 annual BMP implementation reporting is done via the BMP Warehouse.

The application is designed around a reporting organization, individuals who register to use the application must select an organization at the time of registration or be associated with an organization by a DEQ BMP Warehouse Site Admin (SA). All persons registering must have a role assigned either by a DEQ SA or an Organization Admin before they can access different parts of the application. The roles available for an organization are Organization Admin (OA), BMP External User, and Organization Viewer. The OA role is assigned to one or more individual registered users who have been selected by the reporting organization to have this role and can only be established or removed by a DEQ SA. This role has read write access to the organizations data and allows the OA to set one of two roles for persons registered with that organization. These two roles are the BMP External User and Organization Viewer roles. The BMP External User role allows the individual read write access to the data. Individuals with read write access can add or edit existing data for the organization and can search and export that data from the application. The Organization Viewer role allows read access only so these individuals can search and export the data but cannot upload or edit anything. The registration process to create an account is demonstrated in an instructional webinar and described below.

SECTION 2. CREATING AN ACCOUNT

The URL for the application (**https://apps.deq.virginia.gov/BMP/**) takes the user to the log in page (Figure 1) where the link for those who do not have an account can go through the process of creating an account to become a BMP Warehouse user.

Figure 1: BMP Warehouse log in page

An account is based on an email address that is associated with a reporting organization. When the Need an Account link is clicked the application will ask for an email address, first name, last name, and the organization (Figure 2).

Figure 2: Creating a new account

The available organizations display via a drop down menu (Figure 3) plus there is space for any notes the registrant would like to make. Agree to the terms and conditions demonstrate you are not a robot (Figure 4) and the application will send to that email address a link to use that allows creation of a password for the account (Figure 5).

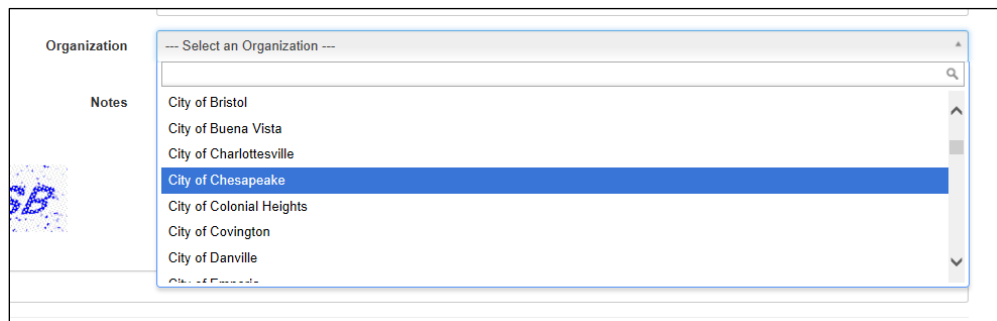**Figure 3: Selecting an Organization**

Figure 4: Agree to Terms and Conditions

Figure 5: Email with link to create password

Create and confirm your password (Figure 6) and the application will then confirm your account is activated (Figure 7).

Set Account Password

DEQ passwords must meet the following criteria:

- At least 8 characters in length
- Utilize at least three of the following four:
  - Special characters
  - Alphabetical characters
  - Numerical characters
  - Combination of upper and lower case letters

Password	
Confirm password	

Submit

Figure 6: Create and confirm password
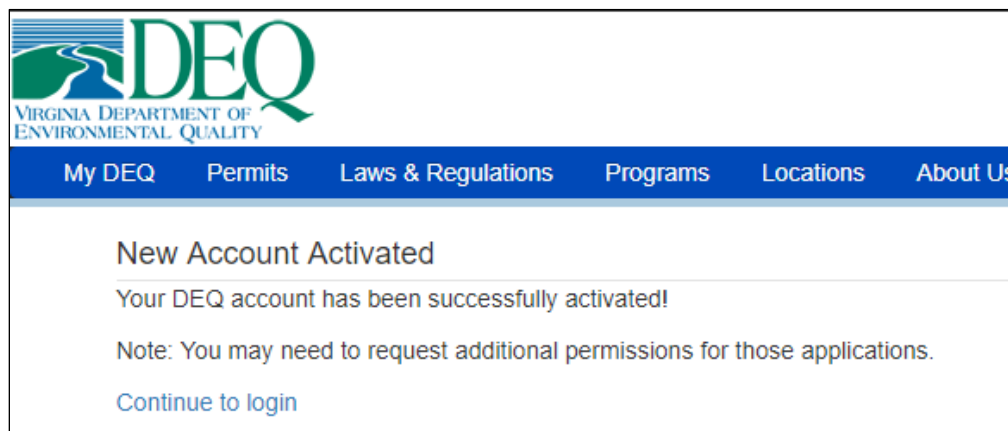
Figure 7: Account activation notification

Whereupon you can log in using your account email and password and access the Home Page (Figure 8) which contains links to helpful information and a series of questions regarding the need to load data or not via the application. Until a DEQ Site Admin or an Organization Admin sets a role for a user access to the Upload and Search functions of the application will be denied.

Welcome to the BMP Warehouse

This application is used to upload Nonpoint Source Best Management Practice (BMP) data into the BMP Warehouse application using pre-determined Excel files or templates. It is not designed as a searchable database. This application should be used to meet BMP data reporting requirements to the Virginia Department of Environmental Quality (DEQ). Once BMP data is uploaded into the system all data is stored in a centralized database. Data stored in the BMP Warehouse will be used for state and federal reporting purposes. Please refer to the following link to access the most recent instructional webinar for more information and to determine whether you should be using this application.

For more documentation on BMPs and Bay Program Modeling please refer to the following webpages:

- Source Data
- Phase 6 Time Variable Watershed Model Documentation
- Map Tools and Spatial Data
- BMPs

For more documentation on NPS implementation related to local (not Bay TMDL) Implementation plans and the Grants Template please refer to the following webpage:

- Project Resources

Do I Need To Upload BMP Data?

Since many different programs submit data to the BMP Data Upload Application it is important that users know if their data is being submitted through other means.

1. Has anyone in your organization previously submitted your BMP data to the BMP Data Upload Application?

   If yes, then do not submit this data. If you are unsure check with your organization and/or DEQ staff to verify the BMP data has not already been submitted. You may also query all data previously submitted by your organization on the Search tab.

2. Is this data being reported as part of a 319(h) or WQIF NPS grant-funded project?

   If yes, submit this data using the Grant Reporting BMP Template.

3. Has this data been submitted to DCR's agricultural cost share database or to a local Soil & Water Conservation District including the Virginia Conservation Assistance Program (VCAP)?

   If yes, then do not submit this data.

4. Has this data been submitted to the Storm Water Construction General Permitting Database?

   If yes, then do not submit this data. BMPs installed to meet Virginia Stormwater Management Program requirements should NOT be submitted through the BMP Warehouse. This BMP data is already collected by DEQ from the Stormwater Construction General Permit database.

5. Is this data being reported to meet MS4 permit annual reporting requirements?

   If yes, submit this data using the Urban-Suburban General BMP Template. Instructions for completing the spreadsheet can be found on the second tab of the Urban-Suburban Template spreadsheet

   MS4 permittees should report the following:

   - New BMPs to treat existing developed lands (retrofits)
   - Existing BMPs retrofitted to increase treatment ability
   - BMPs to treat stormwater even though land disturbance activity is below Construction Stormwater General Permit thresholds
   - BMPs located outside of the MS4 Service Area may be reported on the same template as BMPs located inside the MS4 Service Area
   - BMPs that were installed to meet Virginia Stormwater Regulations prior to July 1, 2014 and not reported under the Stormwater Construction General Permit
   - BMPs for which an inspection occurred during the reporting period

   Data is entered into the BMP Warehouse for tracking purposes and to provide inputs to the Chesapeake Bay model via NEIEN, (EPA Environmental Information Exchange Network). The data is not used to determine TMDL compliance for individual MS4 systems.

To start the upload process, go to the Upload tab and follow the instructions.

Figure 8: BMP Warehouse home page

SECTION 3. UPLOADING NEW DATA

To upload new (not previously reported to DEQ) data into the BMP Warehouse online reporting application follow these instructions. Go to the Upload tab on the BMP Warehouse application (Figure 9) and download the appropriate template (Figure 10) for reporting installed BMPs.
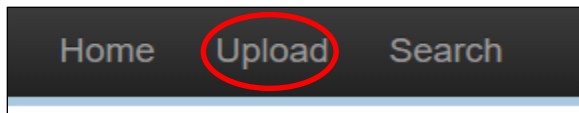
Figure 9: Location of the Upload tab on BMP Warehouse header bar
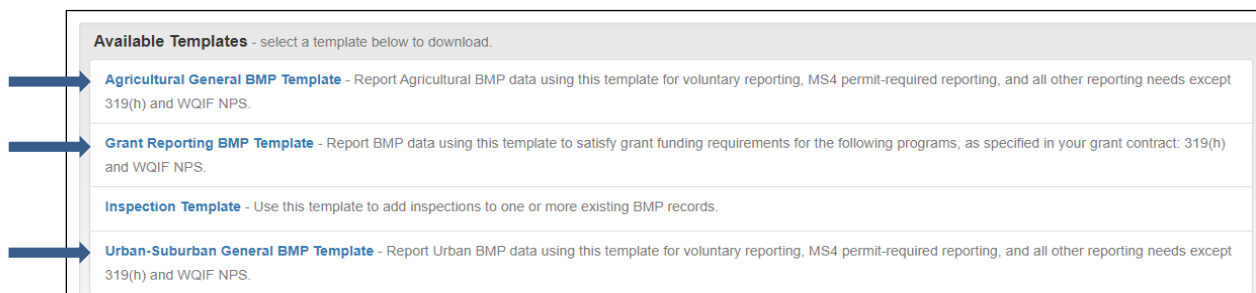
Figure 10: Selecting upload templates from the Upload tab

For reporting BMPs installed via a WQIF NPS or 319(h) grant from DEQ select and download the Grant Reporting BMP template and follow the instructions provided by DEQ Grant staff for completion and uploading of the template. For all other BMPs select and download one of the General BMP templates as shown in Figure 11. In order to aid in internal tracking of your data DEQ asks you to include your reporting organization in the file name.
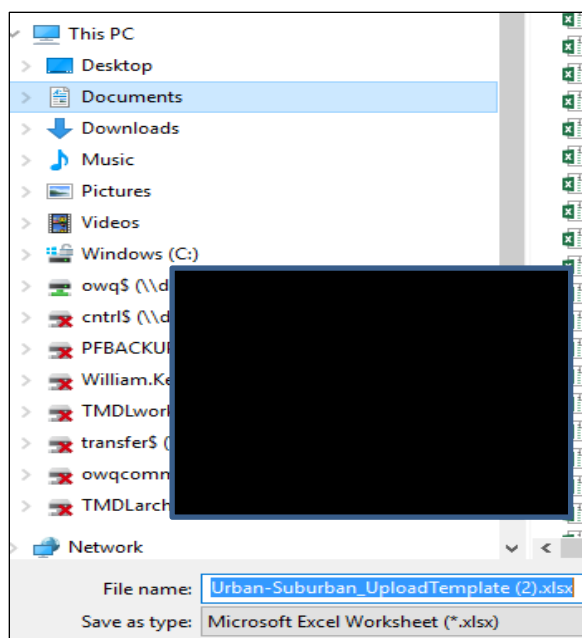
Figure 11: Downloading to your computer or network and naming the template

For agricultural BMP implementation select and download the Agricultural General BMP Template. For Urban-Suburban BMP implementation reporting select and download the Urban-Suburban General BMP Template. Both general templates have septic and applicable natural sector BMPs included. All upload templates utilize dropdown menus for selecting BMP names and other pertinent fields depending on the templates being used. Both general templates have the same structure and field headers but have different BMP names listed and certain fields are applicable only to one or the other template. Specifically the NRCS code field which is active and can be used on the Agricultural General BMP Template. This field is inactive in the Urban-Suburban General BMP Template. Similarly the Clearinghouse BMP field which displays the DEQ SWCGP BMP codes is active in the Urban-Suburban BMP Template but is inactive in the Agricultural General BMP Template. Both of these fields utilize drop down lists that allow selection of the appropriate BMP code for that record. As shown in Figure 12 by selecting the Clearinghouse BMP code from the dropdown list the template auto populates the BMP Name, Measurement Name, and Measurement Unit fields. Similarly if using the Agricultural General BMP Template selection of the appropriate NRCS code results in auto population of these same fields.

	G	H	I	J	
e	Clearinghouse BMP	BMP Name	Measurement Name	Measurement Unit	B
	BB1	Bioretention	Area Treated	ACRE	

Figure 12: Selecting a Clearinghouse BMP code

If you are not using these code systems for reporting use the dropdown menu provided in the BMP Name field to select your BMP. Once the name is selected the Measurement Name and Measurement Unit fields will auto populate. Some BMPs have options available for selecting the Measurement Name so always

confirm the correct measure is being recorded by clicking on the dropdown arrow for the Measurement Name field as shown in Figure 13.

H	I	J
BMP Name	**Measurement Name**	**Measurement Unit**
Permeable Pavement	Permeable Pavement w/ Sand, Veg. - A/B soils, no underdrain	ACRE
Permeable Pavement	Permeable Pavement w/ Sand, Veg. - A/B soils, underdrain	ACRE
Permeable Pavement	Permeable Pavement w/ Sand, Veg. - C/D soils, underdrain	ACRE
Permeable Pavement	Permeable Pavement w/o Sand, Veg. - A/B soils, no underdrain	ACRE
Permeable Pavement	Permeable Pavement w/o Sand, Veg. - A/B soils, underdrain	ACRE
Permeable Pavement	Permeable Pavement w/o Sand, Veg. - C/D soils, underdrain	ACRE

Figure 13: Selecting Measurement Name(s)

Most BMPs have a single measurement name so will only display that measure when clicking on the dropdown arrow and some BMPs may have options but require only a single selection be made. Other BMPs require multiple measure names be reported together. The BMPs that have options but require a single measurement name be selected are Permeable Pavement (shown in Figure 13), Street Cleaning Practice 1 through 11 (acres or curb lane miles), and Urban Nutrient Management Plan (High Risk, Low Risk, Unknown Risk). The following BMPs are those where multiple measurement names are required per BMP instance: Monitored Non-Tidal Algal Flow-way (Acres, TN, TP, TSS), Monitored Tidal Algal Flow-way (Acres, TN, TP, TSS), Narrow Urban Forest Buffer (Acres. Length, Width), Storm Drain Cleaning (TN, TP, TSS), Stream Restoration Urban (Length and Protocol 1, 2 or 3 TN, TP, or TSS), Urban Shoreline Non-Vegetated (Length Restored, Protocol 1 TN, TP, and TSS) and Urban Shoreline Vegetated (Length Restored, Protocol 1 TN, TP, and TSS). To properly record BMPs that require multiple measurement names each record must share the same BMP ID as shown in Figure 14. Once a measurement name is selected the Measurement Unit field is auto populated with the correct unit.

D	E	F	G	H	I	J
BMP ID	**Date Installed**	**NRCS Code**	**Clearinghouse BMP**	**BMP Name**	**Measurement Name**	**Measurement Unit**
1				Monitored Non-Tidal Algal Flow-way	Acres	ACRE
1				Monitored Non-Tidal Algal Flow-way	TN	LBS
1				Monitored Non-Tidal Algal Flow-way	TP	LBS
1				Monitored Non-Tidal Algal Flow-way	TSS	LBS
2				Monitored Tidal Algal Flow-way	Acres	ACRE
2				Monitored Tidal Algal Flow-way	TN	LBS
2				Monitored Tidal Algal Flow-way	TP	LBS
2				Monitored Tidal Algal Flow-way	TSS	LBS
3				Narrow Urban Forest Buffer	Acres	ACRE
3				Narrow Urban Forest Buffer	Length	FEET
3				Narrow Urban Forest Buffer	Width	FEET
4				Storm Drain Cleaning	TN	LBS
4				Storm Drain Cleaning	TP	LBS
4				Storm Drain Cleaning	TSS	LBS
5				Stream Restoration Urban	Length Restored	FEET
5				Stream Restoration Urban	Protocol 1 TN	LBS
5				Stream Restoration Urban	Protocol 1 TP	LBS
5				Stream Restoration Urban	Protocol 1 TSS	LBS
5				Stream Restoration Urban	Protocol 2 TN	LBS
5				Stream Restoration Urban	Protocol 3 TN	LBS
5				Stream Restoration Urban	Protocol 3 TP	LBS
5				Stream Restoration Urban	Protocol 3 TSS	LBS
6				Urban Shoreline Non-Vegetated	Length Restored	FEET
6				Urban Shoreline Non-Vegetated	Protocol 1 TN	LBS
6				Urban Shoreline Non-Vegetated	Protocol 1 TP	LBS
6				Urban Shoreline Non-Vegetated	Protocol 1 TSS	LBS
7				Urban Shoreline Vegetated	Acres Planted	ACRE
7				Urban Shoreline Vegetated	Length Restored	FEET
7				Urban Shoreline Vegetated	Protocol 1 TN	LBS
7				Urban Shoreline Vegetated	Protocol 1 TP	LBS
7				Urban Shoreline Vegetated	Protocol 1 TSS	LBS

Figure 14: Proper format for reporting BMPs requiring multiple measurement names

The BMP ID field is a required field when reporting BMPs that must have multiple measurement names and units associated with the BMP record. This ID must be identical for each measurement name selected per BMP instance. Regardless of the reason selected for the upload complete all required fields and save the template. Required fields vary by the reason selected on the upload tab. There are 3 options available for selection (Figure 15) when loading new data into the BMP Warehouse. These are MS4-Required Reporting, 319(h)/WQIF NPS Grant Reporting, and Other Reporting (Non-319(h)/WQIF NPS). Inspection template uploads will be detailed in the section discussing updating existing records.

Figure 15: Selecting the reason for reporting

After completing the template browse to where you have it on your computer or network select the file and click open (Figure 16).

Figure 16: Browsing to and opening your completed template

Click on the upload button and when prompted confirm you wish to upload the data or cancel if you do not want to upload data as shown in Figure 17.
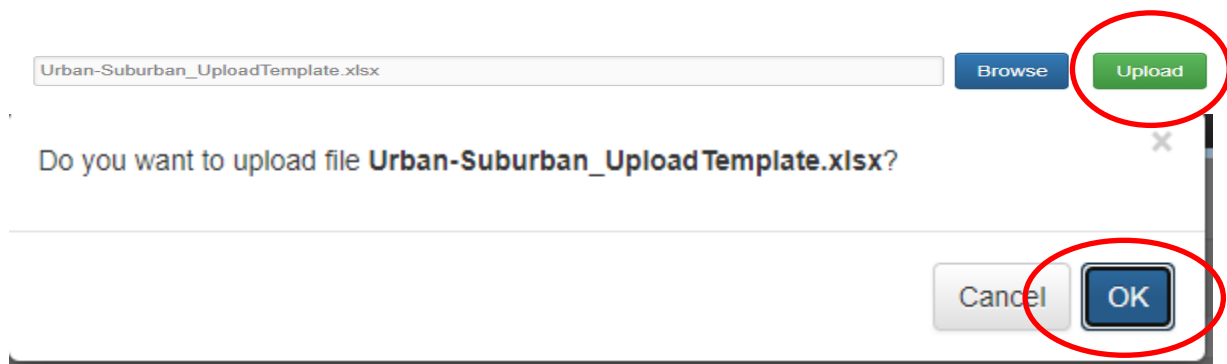
Figure 17: Selecting Upload and confirming the upload

Once the OK button is clicked the application will go through a data validation and if all records pass this validation an Approve button will be displayed. Click on the Approve button and confirm your approval as shown in Figure 18.
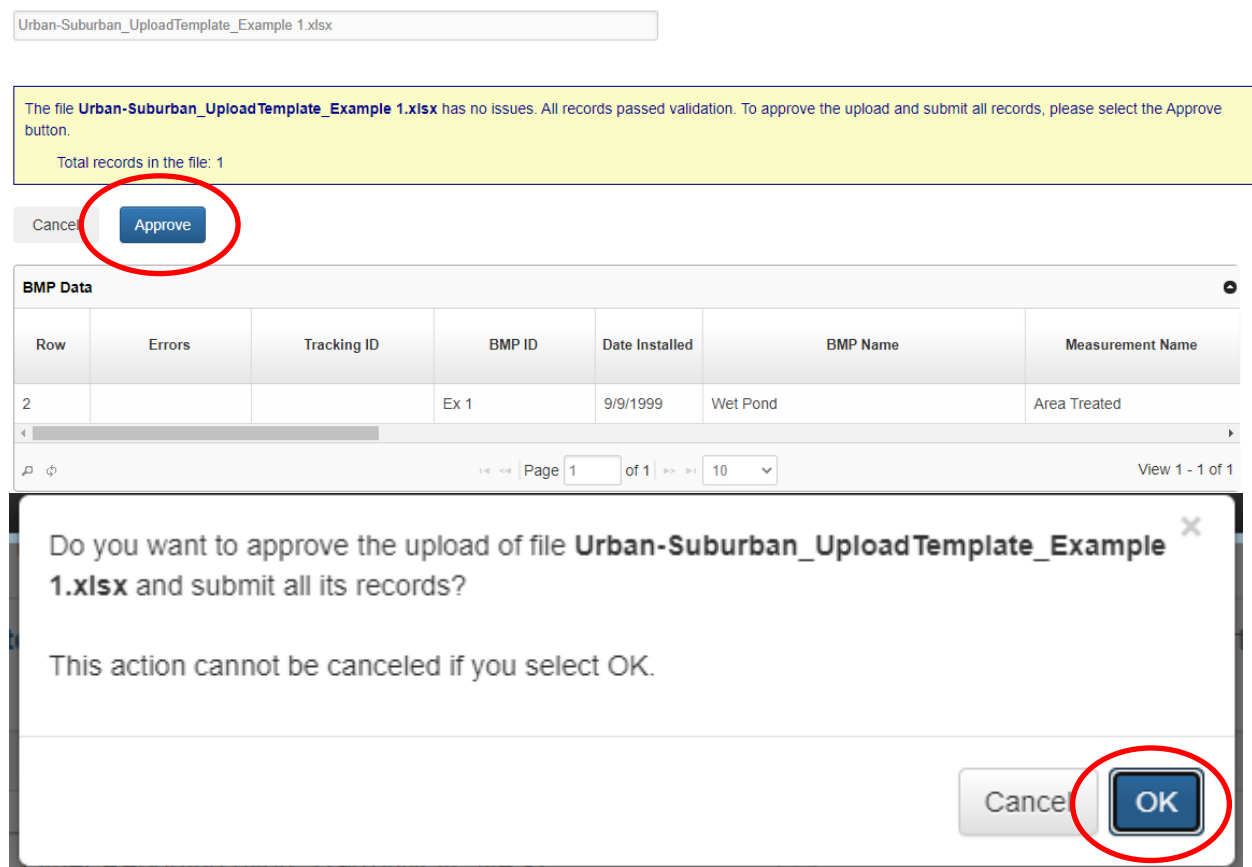

Figure 18: Approve and confirmation of upload screen

Once the Approve button is clicked and confirmed by clicking the OK button the validated data will then be put into the BMP Warehouse import database and an email will be sent to the individual uploading the data with an approved template that will have the Upload Status, Tracking ID, and Import ID assigned by

the application for each record successfully uploaded. This approved template is the receipt for a successful upload to the application.

If the validation step finds errors in the upload template, such as a required field is missing data, or the incorrect template is trying to be uploaded, then the application will reject the upload attempt and provide a BMPUploadResults.xlsx that will detail which record(s) have failed validation and the reason for the failure as detailed in Figure 19 by inserting a comment on each error. Each error will need to be corrected and another upload attempt made. The validation process is iterative across the template fields so if multiple errors exist on a single record multiple upload attempts may be needed in order to have the template validate and accept the data. Once all errors have been corrected on the template the Approve button will appear, follow the instructions above to confirm and upload the data to the system. Once loaded the system will email the user an approved template as shown in Figure 20.

	A	B	C	D	E	F	G	H	
							Clearinghouse		
1	Upload Status	Import ID	Tracking ID	BMP ID	Date Installed	NRCS Code	BMP	BMP Name	Me
2	FAIL			1	01/01/20			Constructed Wetland Elevated Mound	Sys
3	PASS			2	01/02/20			Constructed Wetland Septic	Sys
4	PASS			3	01/03/20			Constructed Wetland Shallow Pressure	Sys
5	PASS			4	01/04/20			IFAS	Sys
6	PASS			5	01/05/20			IFAS Elevated Mound	Sys
7	PASS			6	01/06/20			IFAS Shallow Pressure	Sys
8	PASS			7	01/07/20			IMF	Sys
9	FAIL			8				IMF Elevated Mound	Sys
10	PASS				1/09/20			IMF Shallow Pressure	Sys
11	PASS				1/10/20			NSF 40	Sys
12	PASS				1/11/20			NSF 40 Elevated Mound	Sys
13	PASS				1/12/20			NSF 40 Shallow Pressure	Sys
14	PASS			13	01/13/20			Proprietary Ex Situ	Sys
15	PASS			14	01/14/20			Proprietary Ex Situ Elevated Mound	Sys
16	PASS			15	01/15/20			Proprietary Ex Situ Shallow Pressure	Sys
17	PASS			16	01/16/20			RMF	Sys
18	PASS			17	01/17/20			RMF Elevated Mound	Sys
19	PASS			18	01/18/20			RMF Shallow Pressure	Sys
20	PASS			19	01/19/20			Septic Connections	Ho
21	PASS			20	01/20/20			Septic Denitrification	No
22	FAIL			21	01/21/20			Septic Denitrification - Advanced	Sys
23	FAIL			22	01/22/20			Septic Effluent - Advanced	Sys
24	PASS			23	01/23/20			Septic Effluent Elevated Mound	Sys
25	PASS			24	01/24/20			Septic Effluent Shallow Pressure	Sys
26	FAIL			25	01/25/20			Septic Secondary Treatment - Advanced	Sys
27	PASS			26	01/26/20			Septic Tank Advanced Treatment	No

Note in cell E9: Required, enter the date the BMP was installed (mm/dd/yyyy).

Figure 19: Example BMPUploadResults.xlsx detailing errors in the template

Figure 20: Example of DEQ Approved BMPUploadResults.xlsx

Additionally the user can click on the link on the Upload Page for instructions and display written instructions on uploading templates (Figure 21).

Figure 21: Upload page instructions drop-down window

SECTION 4. SEARCHING AND EXPORTING DATA

4.1 Searching using the BMP Warehouse Query Builder

Select the Search tab on the application header bar and when the query builder page displays select Add Filter to begin creation of a filter to query the data as shown in Figure 22. An individual can only access and query their organizations data. The BMP Warehouse application is not designed as a publically accessible and searchable database but an application to facilitate data reporting.
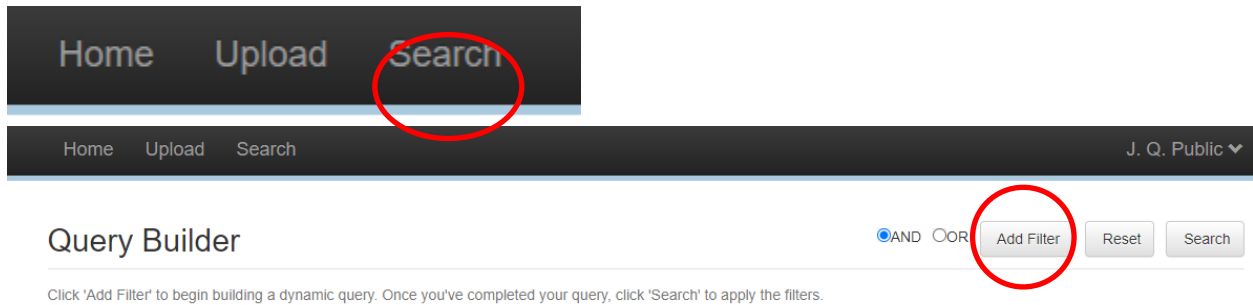
Figure 22: Location of Search tab on BMP Warehouse header bar

The majority of filters operate by drop down menus and allow one to create one or more filters that can either be a series of AND statements or a series of Or statements. The application does not support more complex queries such as statements that contain both an AND plus an OR. Figures 23, 24 and 25 illustrate a single query, AND, and Or statement queries.

Figure 23: Simple query for all records imported by an organization

Figure 24: An example query using an AND statement

Figure 25: An example query using an OR statement

4.2 Selecting Columns

Once a query has returned with information the operator can select to add or remove columns and can arrange the columns in any desired order. The application default view contains the general template column structure. Click on the lower left corner of the query on the word Columns. As shown in Figure 26. To display the column organizer window. To remove a column from being displayed click on the minus sign to the right of the item. To add an item click on the plus sign to the right of that item as shown in Figure 27.
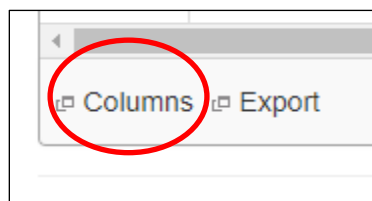
Figure 26: Selecting the Columns display box
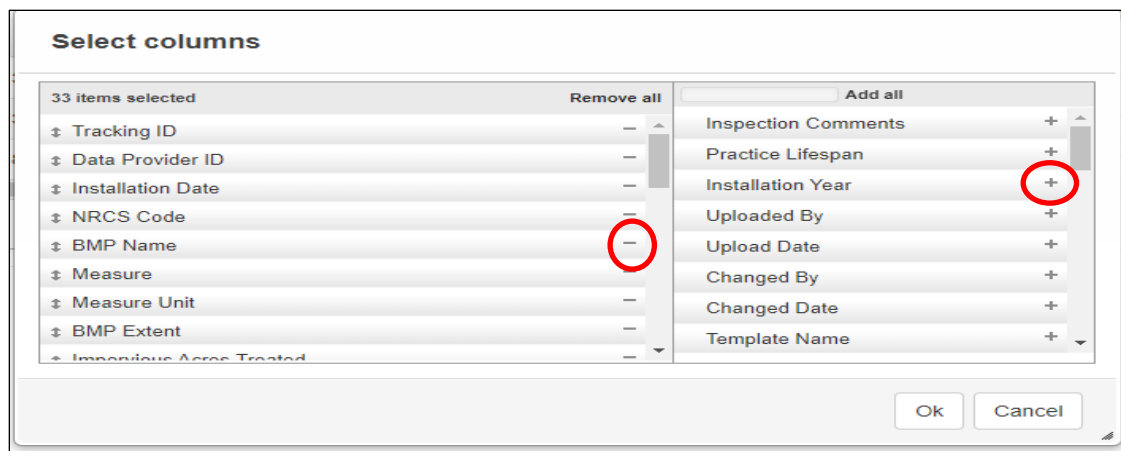
Figure 27: Adding or removing columns

By dragging and dropping an item on the selected list it can be moved up or down on the display order list so that the user can define which columns are displayed (Figure 28) and eligible for export and appear first to last. Only the columns selected and shown will be exported as shown in Figure 29.
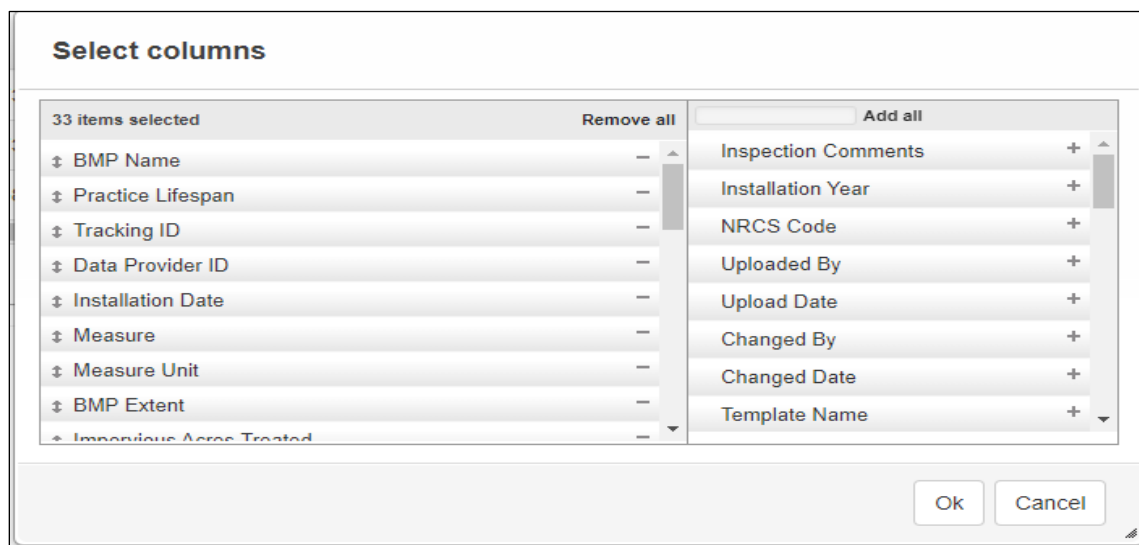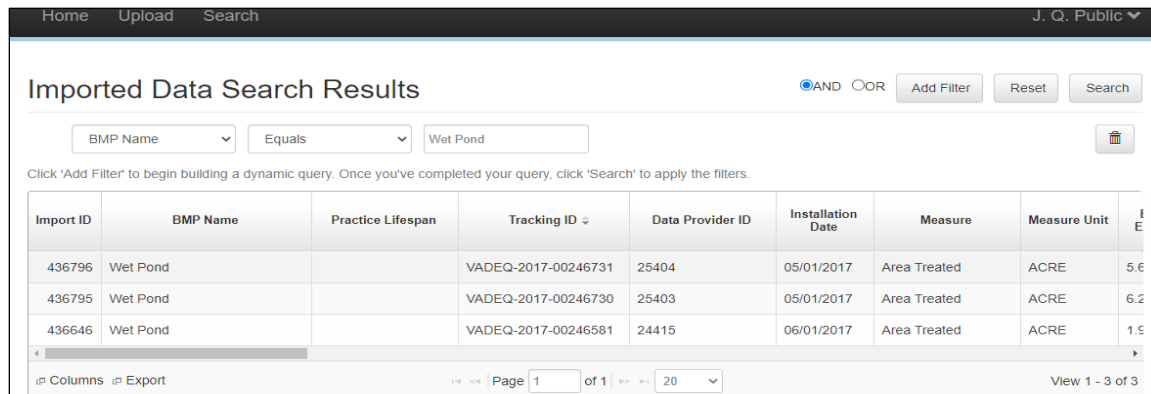
Figure 28: Reordering columns

Figure 29: Example display with reordered columns

4.3 Exporting Data

To export the search results click on the word Export on the lower left of the query results and confirm the desire to export the data as displayed as shown in Figure 30.
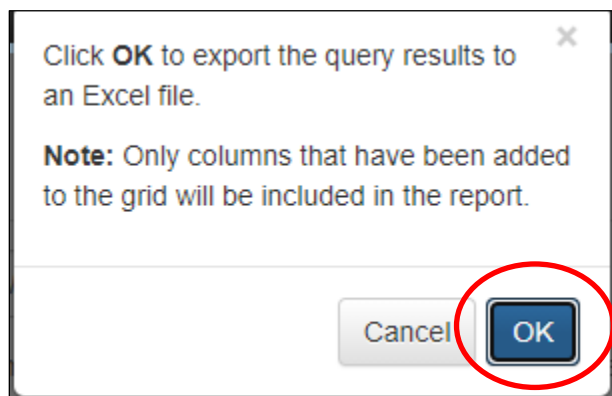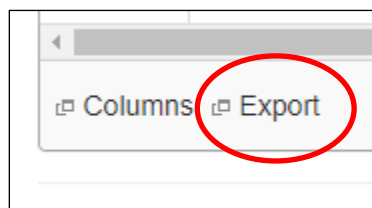
Figure 30: Selecting Export and confirmation

Then select the location the file will be downloaded to and if desired rename the export as shown in Figure 31.
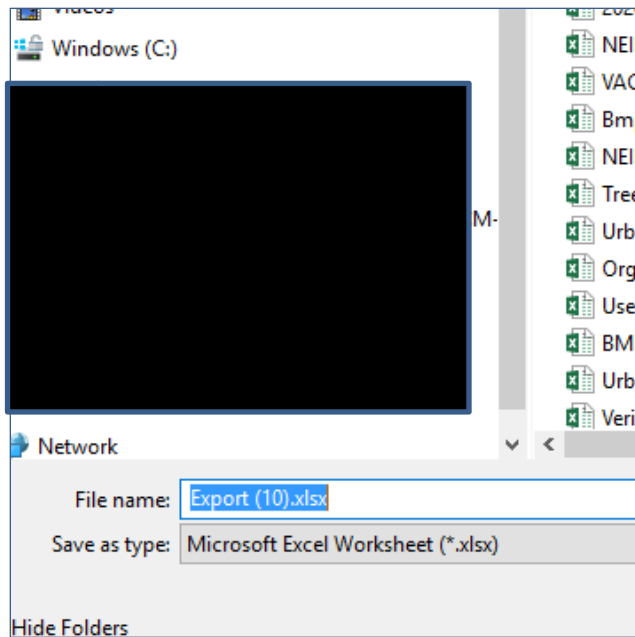
Figure 31: Downloading and naming exported query results

4.4 Updating Existing Data

There are two ways data can be updated or edited via an upload these are using a general template or an inspection template.

Inspection Template Use

The most common reason for updating a record is to add a new inspection date, inspection status (PASS/FAIL/REMOVE), and a new maintenance date. The application records all inspection dates, status, and maintenance dates but only displays the most recent entries. To provide new inspection data download the Inspection Template indicated in Figure 32. Add the Tracking ID the application provided when the data record was successfully uploaded initially. Add in the pertinent information as shown in Figure 33. Remember to select Inspection as the reason (Figure 34) for your upload on the Upload tab and proceed with uploading your inspection template just as described in the uploading new data section above. One or many unique Tracking IDs or multiple inspection or maintenance dates for the same Tracking ID can be loaded as long as each is chronologically newer than the installation date of the BMP. However, only the most recent dates will display when the data is searched or exported. The application will reject records with dates newer than the date of the inspection template upload. Future or planned inspection or maintenance events cannot be reported. Only those dates that have occurred on or before the date information is being loaded into the application will pass validation. Once successfully uploaded the system emails the user uploading the data an approved template indicating the records have passed validation and have been updated in the database (Figure 35).
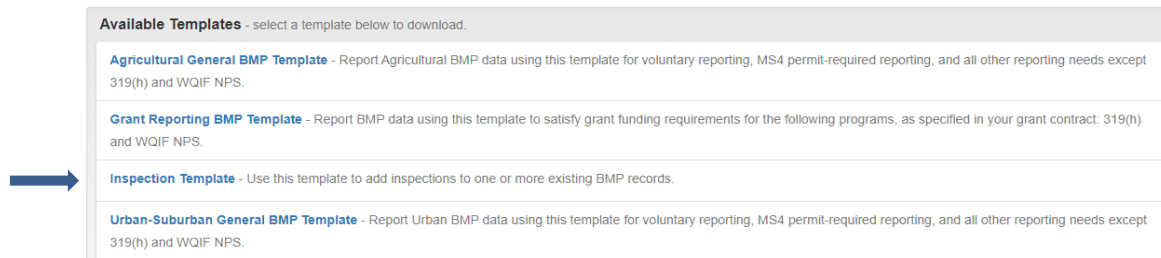
Figure 32: Downloading the Inspection Template

There are three required fields when using the Inspection Template (Figure 32). These are the Tracking ID, Inspection Date, and Inspection Status fields. The Upload Status field is restricted and must be left blank. The application will fill that in with either a PASS of FAIL as part of the upload process. There are two optional fields of Maintenance Date and Inspection Comments.

Figure 33: Inspection Template Field headers

The Inspection Status field in the inspection template utilizes a drop down menu that contains three options that can be selected for that entry. These are PASS, FAIL, and REMOVED. If the organization reporting the data wants credit in the CBP simulations a BMP must be within the specified credit duration the model recognizes for each BMP or have been inspected and have a PASS status in order to provide another credit duration period. If a BMP is in FAIL status CBP removes that record from the simulation effort. There are two ways to get a FAIL status changed. The first is to supply a more recent inspection date and status of PASS than the failing inspection date. Or provide a maintenance date on or newer than the failing inspection date. The Inspection Comments field is optional and for the users benefit if they desire to add additional information to the BMP record regarding the specific inspection record.

Figure 34: Selecting Inspection as reason for reporting

	A	B	C	D	E	
1	Upload Status	Tracking ID	Inspection Date	Inspection Status	Maintenance Date	Inspecti
2	PASS	ARLCO-2010-00050655	9/23/2018	PASS		
3	PASS	ARLCO-2016-00269067	6/7/2019	PASS		
4	PASS	ARLCO-2007-00050676	8/20/2018	PASS		
5	PASS	ARLCO-2007-00050677	10/18/2018	PASS		
6	PASS	ARLCO-2003-00269105	8/15/2019	PASS		
7	PASS	ARLCO-2006-00268930	8/15/2019	PASS		
8	PASS	ARLCO-2006-00268931	8/15/2019	PASS		
9	PASS	ARLCO-2004-00269111	12/30/2019	PASS		
10	PASS	ARLCO-2005-00269112	8/14/2019	PASS		
11	PASS	ARLCO-2006-00268935	9/4/2019	PASS		
12	PASS	ARLCO-2006-00268926	10/24/2018	PASS		
13	PASS	ARLCO-2008-00050689	10/17/2018	PASS		
14	PASS	ARLCO-2008-00268950	10/17/2018	PASS		
15	PASS	ARLCO-2008-00268951	10/17/2018	PASS		
16	PASS	ARLCO-2008-00050692	6/7/2019	PASS		
17	PASS	ARLCO-2008-00050693	8/20/2018	PASS		
18	PASS	ARLCO-2009-00268963	10/24/2018	PASS		

Figure 35: Example of a successful Inspection Template upload

General Template Use[1]

To update data that already exists in the application it is suggested that you first export your data as it exists in the import database. The application is set up to display the General Template columns to facilitate copy/paste functions. For example the name of the BMP was incorrectly entered originally. To make this type or similar change the entire record needs to be reloaded with a general template that includes the record's Import ID and Tracking ID as shown in Figure 36. When these 2 ID's are included in an upload template and successfully uploaded the application will overwrite that records existing data with what is in the template just uploaded.

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[1] This section is different than inspection information as described above.

	A	B	C	D	E	F	G	H	
							Clearinghouse		
1	Upload Status	Import ID	Tracking ID	BMP ID	Date Installed	NRCS Code	BMP	BMP Name	Measu
2		454601	USDA-2019-00261172		06/30/19	614		Watering Facility	NO
3		454602	USDA-2019-00261173		06/30/19	614		Watering Facility	NO
4		454603	USDA-2019-00261174		06/30/19	614		Watering Facility	NO
5		454604	USDA-2019-00261175		06/30/19	614		Watering Facility	NO
6		454605	USDA-2019-00261176		06/30/19	614		Watering Facility	NO
7		454606	USDA-2019-00261177		06/30/19	614		Watering Facility	NO
8		454607	USDA-2019-00261178		06/30/19	614		Watering Facility	NO
9		454608	USDA-2019-00261179		06/30/19	614		Watering Facility	NO
10		454609	USDA-2019-00261180		06/30/19	614		Watering Facility	NO
11		454610	USDA-2019-00261181		06/30/19	614		Watering Facility	NO
12		454611	USDA-2019-00261182		06/30/19	614		Watering Facility	NO
13		454612	USDA-2019-00261183		06/30/19	614		Watering Facility	NO
14		454613	USDA-2019-00261184		06/30/19	614		Watering Facility	NO
15		454614	USDA-2019-00261185		06/30/19	614		Watering Facility	NO
16		454615	USDA-2019-00261186		06/30/19	614		Watering Facility	NO
17		454616	USDA-2019-00261187		06/30/19	614		Watering Facility	NO
18		454617	USDA-2019-00261188		06/30/19	614		Watering Facility	NO
19		454618	USDA-2019-00261189		06/30/19	614		Watering Facility	NO
20		454619	USDA-2019-00261190		06/30/19	614		Watering Facility	NO
21		454620	USDA-2019-00261191		06/30/19	614		Watering Facility	NO

Figure 36: Example of providing Import and Tracking IDs

Once all the needed edits are made to a general template to update specific records proceed to the upload page and select your reason (MS4-Required Reporting or Other Reporting), browse to and open your update template, and load following the steps described above for uploading new data. Figure 37 illustrates a successful upload template provide the user by the application once processed.

	A	B	C	D	E	F	G	H	
							Clearinghouse		
1	Upload Status	Import ID	Tracking ID	BMP ID	Date Installed	NRCS Code	BMP	BMP Name	Measu
2	PASS	454601	USDA-2019-00261172		06/30/19	614		Watering Facility	NO
3	PASS	454602	USDA-2019-00261173		06/30/19	614		Watering Facility	NO
4	PASS	454603	USDA-2019-00261174		06/30/19	614		Watering Facility	NO
5	PASS	454604	USDA-2019-00261175		06/30/19	614		Watering Facility	NO
6	PASS	454605	USDA-2019-00261176		06/30/19	614		Watering Facility	NO
7	PASS	454606	USDA-2019-00261177		06/30/19	614		Watering Facility	NO
8	PASS	454607	USDA-2019-00261178		06/30/19	614		Watering Facility	NO
9	PASS	454608	USDA-2019-00261179		06/30/19	614		Watering Facility	NO
10	PASS	454609	USDA-2019-00261180		06/30/19	614		Watering Facility	NO
11	PASS	454610	USDA-2019-00261181		06/30/19	614		Watering Facility	NO
12	PASS	454611	USDA-2019-00261182		06/30/19	614		Watering Facility	NO
13	PASS	454612	USDA-2019-00261183		06/30/19	614		Watering Facility	NO
14	PASS	454613	USDA-2019-00261184		06/30/19	614		Watering Facility	NO
15	PASS	454614	USDA-2019-00261185		06/30/19	614		Watering Facility	NO
16	PASS	454615	USDA-2019-00261186		06/30/19	614		Watering Facility	NO
17	PASS	454616	USDA-2019-00261187		06/30/19	614		Watering Facility	NO
18	PASS	454617	USDA-2019-00261188		06/30/19	614		Watering Facility	NO
19	PASS	454618	USDA-2019-00261189		06/30/19	614		Watering Facility	NO
20	PASS	454619	USDA-2019-00261190		06/30/19	614		Watering Facility	NO
21	PASS	454620	USDA-2019-00261191		06/30/19	614		Watering Facility	NO

Figure 37: Example of DEQApprovedBMPSubmission.xlsx for updating records

Example of updating a single BMP record with a multiple measure BMP. A reporting organization may not have collected the information to allow reporting stream restoration using the new protocol methods and the BMP name Stream Restoration Urban but reported the linear feet of Urban stream restoration which provides a per foot default reduction in TN, TP, and TSS (Figure 38).

	A	B	C	D	E	F	G	H	I	J
	Upload Status	Import ID	Tracking ID	BMP ID	Date Installed	NRCS Code	Clearinghouse BMP	BMP Name	Measurement Name	Measurement Unit	B
		279964	ARLCO-2007-00089904	TribA1	09/01/2006			Urban stream restoration	et	FEET	

Figure 38: Original record including Import and Tracking IDs

To update the originally reported Urban stream restoration BMP with protocol information the import ID and tracking ID assign to the original Urban stream restoration reporting must be included along with all the original information for that BMP except it will now be called Stream Restoration Urban. Also a unique ID assigned by the reporting organization is required to be entered into the BMP ID field for that record plus the required additional measures needed for the multiple measure BMP as shown in Figure 39.

Upload Status	Import ID	Tracking ID	BMP ID	Date Installed	NRCS Code	Clearinghouse BMP	BMP Name	Measurement Name	Measurement Unit	B
	279964	ARLCO-2007-00089904	TribA1	09/01/2006			Stream Restoration Urban	Length Restored	FEET	
			TribA1	09/01/2006			Stream Restoration Urban	Protocol 1 TN	LBS	
			TribA1	09/01/2006			Stream Restoration Urban	Protocol 1 TP	LBS	
			TribA1	09/01/2006			Stream Restoration Urban	Protocol 1 TSS	LBS	
			TribA1	09/01/2006			Stream Restoration Urban	Protocol 2 TN	LBS	

Figure 39: Updated record in upload template with multiple measures formatted properly

Once successfully uploaded the BMP is updated to include the new BMP name and measures (Figure 40).

	A	B	C	D	E	F	G	H	I	J	K
1	Upload Status	Import ID	Tracking ID	BMP ID	Date Installed	NRCS Code	Clearinghouse BMP	BMP Name	Measurement Name	Measurement Unit	BMP Extent
2	PASS	279964	ARLCO-2007-00089904	TribA1	09/01/2006			Stream Restoration Urban	Length Restored	FEET	830.00
3	PASS	471671	ARLCO-2007-00089904	TribA1	09/01/2006			Stream Restoration Urban	Protocol 1 TN	LBS	65
4	PASS	471672	ARLCO-2007-00089904	TribA1	09/01/2006			Stream Restoration Urban	Protocol 1 TP	LBS	6.5
5	PASS	471673	ARLCO-2007-00089904	TribA1	09/01/2006			Stream Restoration Urban	Protocol 1 TSS	LBS	6500
6	PASS	471674	ARLCO-2007-00089904	TribA1	09/01/2006			Stream Restoration Urban	Protocol 2 TN	LBS	12

Figure 40: Approved update showing all records with same tracking ID